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REMARKS

The Official Action, dated February 27, 2004, has been received and its contents carefully noted. In view thereof, claims 1-7 have been cancelled in favor of the new claims 8-14 in order to better define that which Applicants regard as the invention. Accordingly, claims 8-14 are presently pending in the instant application.

With reference now to the Official Action, particularly, page 2 thereof, claims 1-7 have been rejected under 35 U.S.C. 112, second paragraph as being indefinite for failure to particularly point out and distinctly claim the subject matter which Applicants regard as the invention.

As can be seen from the foregoing amendments, each of claims 1 through 7 have been cancelled in their entirety without prejudice nor disclaimer of the subject matter set forth therein. Furthermore, new claims 8-14 have been added taking into consideration the comments set forth by the Examiner on pages 2 and 3 of the Official Action. Accordingly, it is respectfully submitted that Applicants' claimed invention, as set forth in claims 8-14, is now in proper formal condition for allowance.

With reference now to page 4 of the Office Action, claims 1 and 3 have been rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 5,917,109 issued to Berkey. This rejection is respectfully traversed in that the patent to Berkey neither discloses or suggest that which is presently set forth by Applicants' claimed invention.

As can be seen from the foregoing amendments, each of claims 1 and 3 have been cancelled in their entirety without prejudice nor disclaimer of the subject matter set forth therein. Accordingly, it is believed that the rejection of claims 1 and 3 under 35 U.S.C. 102(e) as being anticipated by Berkey has been overcome.

With reference to page 5 of the Office Action, claims 4-7 have been rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,301,934 issued to Dobbins or U.S. Patent No. 4,578,096 issued to Siegmund in view of U.S. Patent No. 4,820,320 issued to Baumgart. This rejection is respectfully traversed in that the combination neither discloses nor suggest that which is presently set forth by Applicants' claimed invention.

Again, as can be seen from the foregoing amendments, claims 4-7 have been cancelled in their entirety without prejudice nor disclaimer of the subject matter set forth therein. Accordingly, it is respectfully submitted that this rejection has likewise been

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overcome.

Insofar as the foregoing rejections apply to new claims 8-14 and, particularly, new independent claims 8 and 11, it is respectfully submitted that each of these claims set forth features which are neither disclosed in nor rendered obvious in view of the prior art cited by the Examiner.

With reference to new independent claim 8, a method for manufacturing an optical fiber preform wherein a first glass rod for a core or a second glass rod for the core and a cladding is inserted into a glass pipe for the cladding is recited. The method reduces the pressure in the glass rod and heats the glass pipe in the first glass rod or the second glass rod in a longitudinal direction while reducing the pressure in the glass pipe. The glass pipe is caused to collapse successively in the longitudinal direction due to the heating and, after causing the glass pipe to collapse successively, the preform in which the glass pipe and the first glass rod or second glass rod are unified is successively elongated in the longitudinal direction until the outer diameter thereof becomes a predetermined diameter wherein in the step of causing the glass pipe to collapse, after the glass pipe and/or the first rod or the second glass rod are formed into a tapered shape, the glass pipe is caused to collapse on the first glass rod or the second glass rod.

Particularly, in accordance with Applicants' claimed invention as set forth in independent claim 8, the presently claimed invention recites successively elongating the preform in the longitudinal direction after the step of causing the pipe to collapse successively in a longitudinal direction. A feature of the present invention resides in that the glass pipe is caused to collapse on the first or second glass rod after the glass pipe and/or the first or second glass rod is formed into a tapered shape in step c). Applicants submit that this feature is neither disclosed nor suggested by the prior art of record.

On the other hand, Berkey discloses elongating the pipe in advance thereby causing the elongated pipe to collapse on the rod and elongating the preform in which the pipe and rod are unified. In Berkey, the step of causing the elongated pipe to collapse and the step of elongating the preform are performed separately. The steps are not performed sequentially as is the case of the claimed invention. Moreover, Berkey discloses elongating the pipe in advance but fails to disclose forming a pipe and/or the rod into a tapered shape in the collapsing step. Accordingly, it is respectfully submitted that Applicants' claimed invention

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as set forth in independent claim 8 draws those claims which depend therefrom clearly distinguishes over the teachings of Berkey.

With respect to independent claim 11, this claim recites features similar to that of independent claim 8 and includes a feature that the cross sectional area of the first glass rod and where the second glass rod is smaller than a cross sectional area required for the glass pipe and that the step of feeding is performed so as to satisfy the equations $1 < V_R/V_P < 2$, where V_R is a feed rate of the first glass rod or the second glass rod, and V_P is a feed rate of the glass pipe. Clearly, the prior art of record fails to disclose or remotely suggest such features.

Again, new pending claim 11 recites successively elongating the preform in a longitudinal direction after the step of causing the glass pipe to collapse successively in the longitudinal direction. Furthermore, this claim recites that the cross sectional area of the glass rod is smaller than that required for the glass pipe in that the feeder rate of the glass pipe and the feeder rate of the glass rod are adjusted. With respect to the patents to Dobbins and Siegmund as applied to cancelled independent claim 4, the references are alleged to disclose adjusting the feed rate in a glass pipe while the patent to Baumgart is alleged to disclose reducing the pressure in the glass pipe.

It is initially noted that the patent to Siegmund is not directed to a method for fabricating an optical fiber preform. Moreover, in rejecting Applicants' claimed invention as set forth in previous independent claim 4, the Examiner assumes that the feeder rates of the pipe and rod are zero in the method set forth in Siegmund. This assumption is improper. When fabricating optical compounds, the feeder rates of the pipe and the rod may be zero. However, when fabricating an optical fiber preform, as is the case with the present invention, the feeder rates of the pipe and rod cannot be zero. If the feeder rates were to be zero, the fabricated optical fiber preform would not have a double structure of a core in a cladding, as is required by the present invention. In other words, the optical fiber preform cannot be fabricated with the feeder rates of the pipe and rod being zero. Therefore, each of the references cited by the Examiner fails to disclose fabricating optical fiber preform while satisfying the equation $0.5 \leq V_P/V_R \leq 1$ or as recited in independent 11 that $1 < V_R/V_P \leq 2$. Moreover, each of the primary references cited by the Examiner fail to disclose that the cross section of the glass rod is smaller than that required for the glass pipe. Accordingly, it is

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respectfully submitted that independent claim 11, as well as claims 12-14 which depend therefrom clearly distinguish over the teachings of the prior art of record and are in proper condition for allowance.

Therefore, in view of the foregoing, it is respectfully requested that the objections and rejections of record be reconsidered and withdrawn by the Examiner, that claims 8-14 be allowed and that the application be passed to issue.

Should the Examiner believe a conference would be of benefit in expediting the prosecution of the instant application, he is hereby invited to telephone counsel to arrange such a conference.

Respectfully submitted,



Donald R. Studebaker

Registration No. 32,815

NIXON PEABODY LLP
Suite 900, 401 9th Street, N.W.
Washington, D.C. 20004-2128
(202) 585-8000

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